Product Overview

CAV25512: EEPROM Serial 512-Kb SPI - Automotive Grade

For complete documentation, see the data sheet.

The CAV25512 is a EEPROM Serial 512-Kb SPI - Automotive Grade device internally organized as 64Kx8 bits. This features a 128-byte page write buffer and supports the Serial Peripheral Interface (SPI) protocol. The device is enabled through a Chip Select ($\overline{CS}$) input. In addition, the required bus signals are clock input (SCK), data input (SI) and data output (SO) lines. The $\overline{HOLD}$ input may be used to pause any serial communication with the CAV25512 device. The device features software and hardware write protection, including partial as well as full array protection.

On-Chip ECC (Error Correction Code) makes the device suitable for high reliability applications.

Features

- Automotive Temperature Grade 1 (-40°C to +125°C)
- 2.5 V to 5.5 V Supply Voltage Range

- SOIC and TSSOP 8-lead Packages
- 10 MHz SPI Compatible
- SPI Modes (0,0) & (1,1)
- 128-byte Page Write Buffer
- Additional Identification Page with Permanent Write Protection
- Self-timed Write Cycle
- Hardware and Software Protection
- Block Write Protection
  - Protect ¼, ½ or Entire EEPROM Array

  For more features, see the data sheet

Benefits

- Allows the use in safety critical application
- Single power supply from 2.5 V to 5.5 V. Functional over the entire temperature range
- Space-Efficient Packaging

Applications

- Door module
- Seat control unit
- Body computer & energy management unit
- Immobilizer unit
- Wiper module

Part Electrical Specifications

Product	Compliance	Status	Type	Density	Organization	Data Transmission Standard	f_{cycle} Max (kHz)	t_{ACC} Max ns	V_{CC} Min (V)	V_{CC} Max (V)	$I_{standby}$ Max (μA)	I_{act} Max (mA)	T Min (°C)	T Max (°C)	Package Type
CAV25512VE-GT3	AEC Qualified / PPAP Capable / Pb-free / Halide free	Active	Serial	512 kb	64k x 8	SPI	10000	40	2.5	5.5	5	3	-40	125	SOIC-8
CAV25512YE-GT3	AEC Qualified / PPAP Capable / Pb-free / Halide free	Active	Serial	512 kb	64k x 8	SPI	10000	40	2.5	5.5	5	3	-40	125	TSSOP-8

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